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Description:

SNP-903 series is a 30W, universal input switching mode power supply. It is with various output options, which includes triple outputs, dual outputs and single ouput. Its design meets with UL, CSA, VDE regulations and EMI Vfg 243/1991.

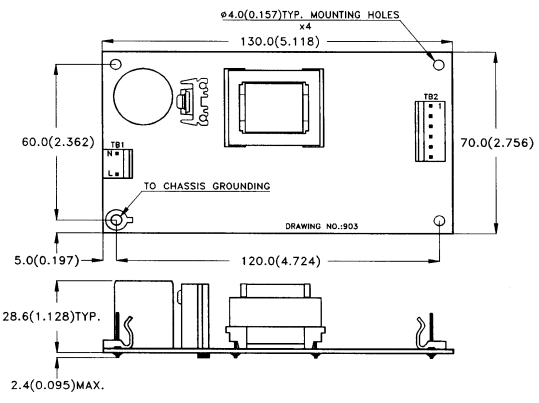
General Specifications:

Input voltage ..... 90VAC to 260VAC
Input frequency ..... 47Hz to 63Hz
Inrush current ..... less than 30A at 115VAC
(Cold start) less than 60A at 230VAC
Outputs ..... see output table
Efficiency ..... higher than 70%
at rated load and 115VAC
Hold up time ..... longer than 16ms
at rated load and 115VAC

Over load protection ..... refer to spec.
Short circuit protection ..... refer to spec.
Over voltage protection ..... crowbar
Operating temperature (open frame type) ..... 0 to 50°C
Cooling ..... Free air convection
Storage temperature ..... -20°C to +85°C
EMI conduction standard ..... FCC class "B"
Vfg 243/1991
Safety ..... UL 1950 D3
CSA 22.2 No.234
VDE EN60 950

Mechanical Specifications:

SNP-9033



Notes:

1. Dimensions shown in mm (inch) as above. Tolerance specified is ± 0.4mm.
2. Size
   70 X 130 X 32.1 mm
   2.756" X 5.118" X 1.264"
3. Mounting holes
   60 X 120 mm
   2.362" X 4.724"
4. Connectors
   TB1 : Molex 5277-2 or equivalent for AC input
   TB2 : Molex 5273-x or equivalent for DC output

TB2 pin Assignment

PIN NO.	1	2	3	4	5	6
SNP-9031	+5V	+5V	GND	GND	-12V	+12V
SNP-9033	+5V	+5V	GND	GND	NC	+12V
SNP-9034	+5V	+5V	GND	GND	-15V	+15V
SNP-9035	+5V	+5V	GND	GND	NC	+24V
SNP-9036	+5V	+5V	GND	GND		
SNP-9037	+12V	+12V	GND	GND		
SNP-9038	+15V	+15V	GND	GND		
SNP-9039	+24V	+24V	GND	GND		

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Output Specifications:

MODEL NO.	OUTPUT RAIL	LOAD			VOLTAGE ACCURACY	RIPPLE NOISE	LINE REG.	LOAD REG.
		MIN.	RATED	PEAK				
SNP-9031	+5V	0A	2A	3A	+4.95~+5.05V	1%	±1%	±1%
	+12V	0A	1.5A	3A	+11.4~+12.6V	1%	±1%	±4%
	-12V	0A	0.3A	0.5A	-11.4~-13.0V	1%	±1%	±5%
SNP-9033	+5V	0A	2A	3A	+4.95~+5.05V	1%	±1%	±1%
	+12V	0A	1.5A	3A	+11.4~+12.6V	1%	±1%	±5%
SNP-9034	+5V	0A	1.5A	3A	+4.98~+5.02V	1%	±1%	±1%
	+15V	0A	1.2A	2A	+14.25~+15.75V	1%	±1%	±4%
	-15V	0A	0.3A	0.5A	-14.00~-16.00V	1%	±1%	±4%
SNP-9035	+5V	0A	2A	3A	+4.95~+5.05V	1%	±1%	±1%
	+24V	0A	0.75A	1.5A	+22.8~+25.20V	1%	±1%	±3%
SNP-9036	+5V	0A	6A	10A	+4.98~+5.03V	1%	±1%	±1%
SNP-9037	+12V	0A	2.5A	4A	+11.97~+12.03V	1%	±1%	±1%
SNP-9038	+15V	0A	2A	3A	+14.85~+15.15V	1%	±1%	±1%
SNP-9039	+24V	0A	1.3A	2A	+23.82~+24.21V	1%	±1%	±1%

Note:

1. Each output can provide up to peak load temporarily. Continuous staying in more than rated load is not allowed.
2. At factory, all outputs in 60% rated load condition, each output is checked to be within the accuracy range while the main output is setting to within the specified accuracy range at rated load.
3. Line regulation is defined by changing ±10% of input voltage from nominal line at rated load.
4. Load regulation is defined by changing ±40% of measured output load from 60% rated load at another output set to 60% ratedload.
5. Ripple & noise is measured by using 15MHz bandwidth limited oscilloscope and terminated each output with a 0.47uF capacitor at rated load and nominal line.
6. Hold up time is measured from the end of the last charging pulse to the time which the main output drop down to regulation limit at rated load and nominaL line.
7. Rated load is maximum loading for flat mounting and free air convection cooling.

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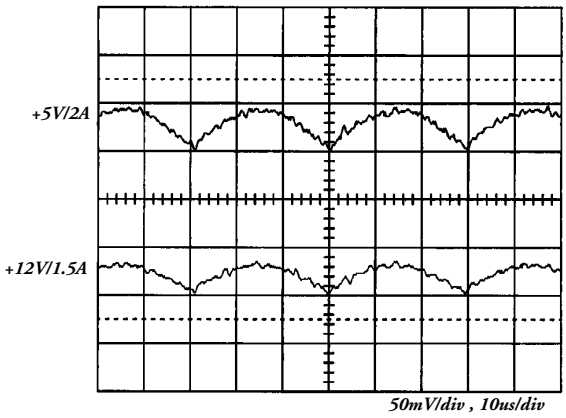
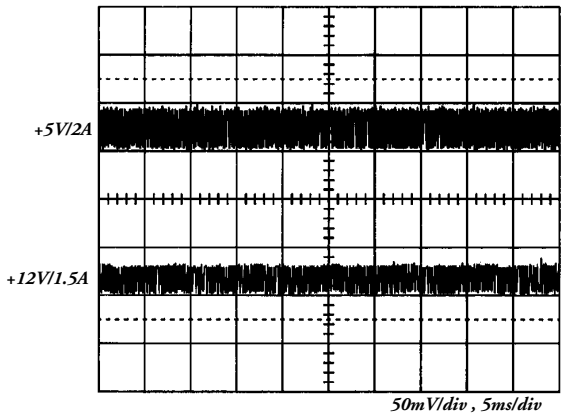
Performance for SNP-9033:

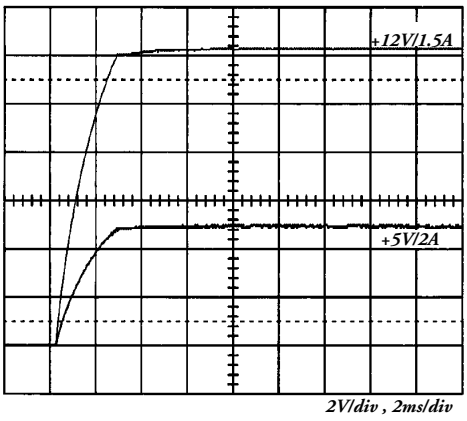
1. Switching frequency ripple



2. Line frequency ripple



3. Output turn on wave form



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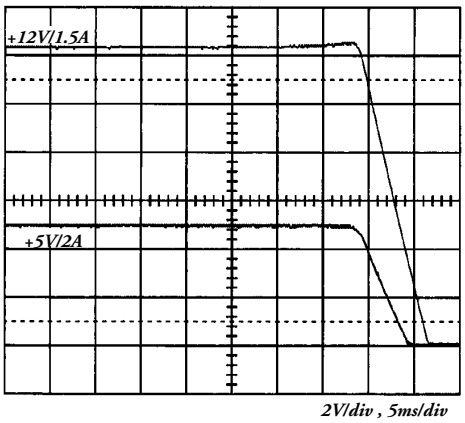
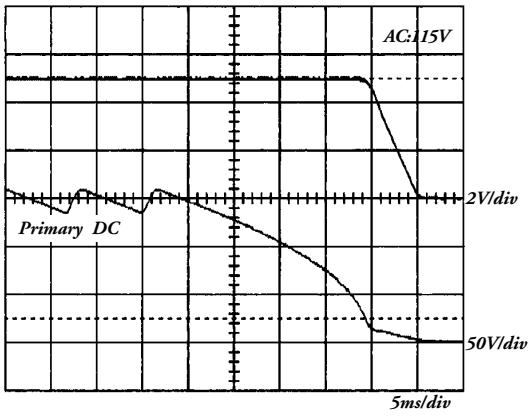
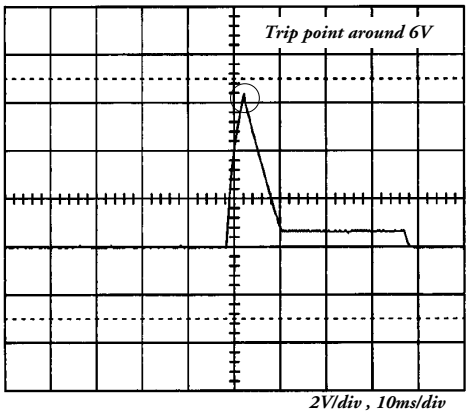


5. Hold-up time



6. Over voltage protection



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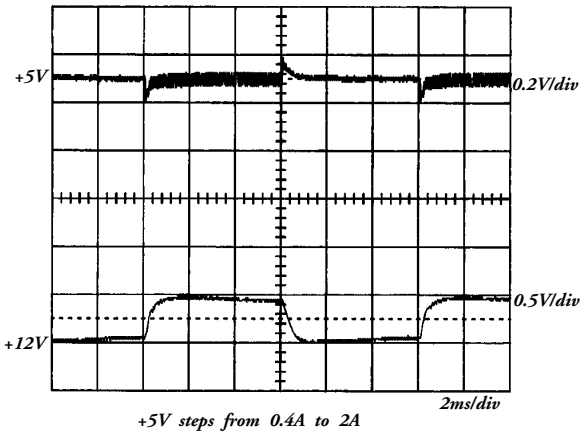
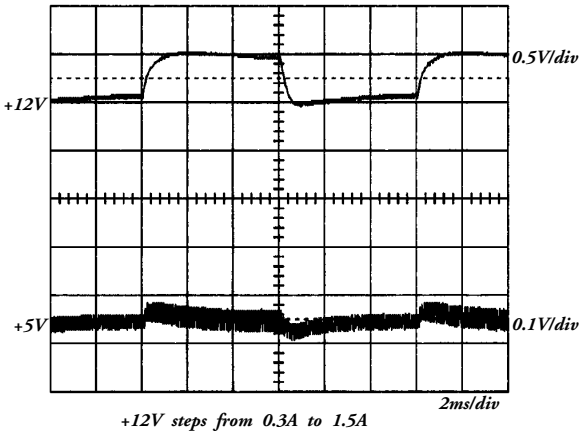
7. + 5V step response



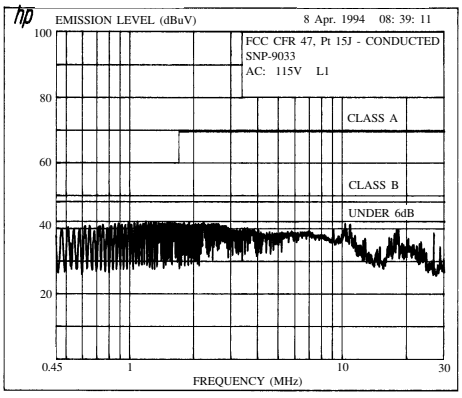
+5V steps from 0.4A to 2A
other output at 60% load

8. + 12V step response

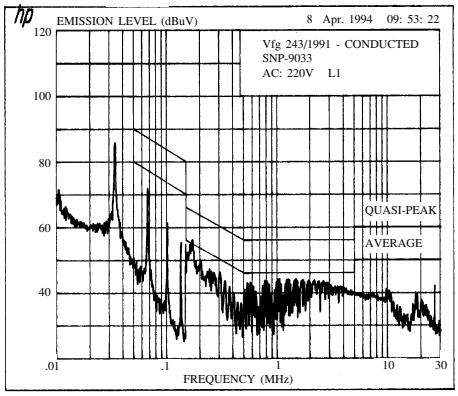


+12V steps from 0.3A to 1.5A
other output at 60% load

9. FCC B performance



10. Vfg 243/1991 performance



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